

Claims

1. A seat folding mechanism comprising: front and rear stays (2a, 2b) L-shaped, inverted L-shaped or transversal T-shaped, rotatably supported on side frames (5) about longitudinal shafts (21); a seat plate (11) supported by cross bars (22) of the front and rear stays, the front ends of said cross bars and the seat plate are connected rotatably freely about the shaft (62) running in front and rear directions and about the shaft (61) which is parallel to the above longitudinal shaft, in positions closer to the side edge (12) which is farther from the side frame of the seat plate.
2. A seat folding mechanism as claimed in claim 1, wherein comprising side frames (5) located at left and right sides of a seat (1); and a seat plate (11) split into left and right parts; wherein the left and right parts of the seat plate are mounted respectively on the side frames (5) located at respective sides with the mechanism contained in claim 1.
3. A seat folding mechanism as claimed in claims 1 or 2, wherein the longitudinal shafts (21) of the stays (2a, 2b) are tilted forward and are rotatably supported on the side frames (5).
4. A seat folding mechanism as claimed in claims 1, 2 or 3, wherein the front ends of the cross bars (22) and the seat plate (11) are connected by a synchronous rotating mechanism (6) which connects the rotating angle about the shaft 62 running in the front and rear directions and that about the shaft (61) parallel to the longitudinal shaft at a relationship of 1:1.
5. A seat folding mechanism as claimed in claims 1 or 2, wherein comprising a backrest (3), wherein the backrest is mounted on the rear stays (2b).
6. A seat folding mechanism as claimed in claim 2, wherein comprising a backrest (3), wherein the backrest (3) is mounted on either one of the left and right rear stays (2b).
7. A seat folding mechanism as claimed in claim 2, comprising a footrest (4) which is supported for moving back and forth, wherein the footrest (4) is connected to a front end of a joining rod (42) which extends beneath the seat from the lower end of the front stays (2a) via a link or a long hole (41) extending in left and right directions.
8. A seat folding mechanism as claimed in claim 7, wherein the footrest (4) comprises a knee pushing plate (43) extending upward from its front edge portion.
9. A wheelchair, comprising a planar U-shaped or M-shaped frame (50), which connects left and right side frames 5 at the front of the occupant's lower limbs, with the occupant's backside including lower limbs open; a seat (1) supported by the frame; a space (55) of the side frames with the rear side open to allow an edge of a bed to be inserted from backside to underneath of the seat; wherein comprising a seat plate (11) split from the center into left and right parts; stays (2a, 2b) supporting the left and right parts of the seat plates with respective side frames (5), the left and right parts of the seat plate are folded toward a side of the occupant and toward a upper rear direction with the surface of the seat plate kept upright, by means of their rotations about support shafts (21) of the stays.
10. A wheelchair as claimed in claim 9, wherein comprising a front wheel (81) of large diameter having a hand rim and supported pivotably on the side frames (5); a rear wheel (82) of small diameter swinging about a vertical support shaft to change direction.
11. A wheelchair as claimed in claims 9 or 10, comprising a support table (32) supporting upper body of the occupant; an ascend drive or ascend exerting device (71) for the support table; linkage mechanisms (24, 79) having an engaging-disengaging means (75) for folding the seat plate (11) when ascending and unfolding the seat plate when descending; and a lock device (76) for maintaining the seat plate (11) at a folded state.

Abstract

A seat plate folding mechanism provided in a wheelchair or in a transfer device used to transfer of a person between a wheelchair and a bed etc. The mechanism enables easier transfer of a person with crippled limb between a wheelchair and bed, toilet seat, etc. The seat plates are folded, with the surfaces vertically set, to the sides of the occupant, to more rear-upward than an extended position. More particularly, the seat plate folding mechanism has stays whose base end sides are pivotally